## **ABSTRACT**

[0046] A method and apparatus reduces storage requirements for identifying a sequence of elements in a compound. The storage reduction receives a set of monoisotopic masses designed to address entries from two or more mass spectroscopy data sets according to a fitness function, analyzes the fitness function configured to facilitate identification of a sequence of elements in the compound, determines a minimum address range for addressing entries in each of the two or more mass spectroscopy data sets according to sequence of elements and fitness function analysis and reduces the size of at least one of the two or more mass spectroscopy data sets to selected mass data values according to the minimum address range.

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